REMARKS

Applicants have studied the Office Action dated July 22, 2005 and have made amendments to the claims.   Claims 1 - 19 are pending. The Applicants have amended claims 1, 2, 5-7, 10-12, and 15-18. The Applicants have further added new claim 19. Reconsideration and allowance of the claims in view of the following remarks are respectfully requested.

Rejection under 35 U.S.C. §103(a) as being unpatentable over Welles in view of Yao

The Examiner rejected claims 1, 3-4, 11, 13-14, 16, and 18 under 35 U.S.C. §103(a) as being unpatentable over Welles, II et al (U. S. Patent No. 6,532,495) (hereinafter "Welles") in view of Yao et al. (U.S. Patent No. 6,532,495) (hereinafter Yao).[1] The Examiner further addressed the patentability of claims 2, 6, 7, 8, 9, 12 and 17 in light of these references as well.

The Applicants assert that there is no teaching in the Welles reference of a speed indication signal as set forth in amended claims 1, 6 and 11, which state "wherein the speed indication signal comprises an indicated speed of transmission of the specified data item." In the Welles reference, data download speeds are selected by a user's instructing a server to use one of multiple download paths that each has a different download speed capacity. The system of Welles varies download speed by selecting paths that each have different rate capacities. Welles, Abstract. Welles does not communicate "an indicated speed of transmission of the specified data item," but rather simply specifies which download path to use. The structure of the Welles system results in different transmission speeds for these different download paths, even though there is no explicit "indicated speed" communicated from the client to the server. As discussed below, the lack of an explicit "indicated speed" within an "indicated speed signal" precludes an effective combination of Welles with Yao to achieve the elements of the presently claimed invention.

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[1] Applicants make no statement whether such combination is even proper.

BC9-99-044   -9-   S/N 09/497,836

The Applicants have amended claims 1, 6, and 11 to more clearly specify the "limiting an average rate of transmission of at least a portion of the specified data item across a data link to the requesting computer to be not greater than the indicated speed <u>contained within the speed indication signal</u>." Support for this amendment is found in the specification at, for example page 6, lines 2 through 24. No new matter has been added by these amendments. As discussed above, the teachings of Welles do not include a <u>speed indication signal</u> that explicitly contains an "<u>indicated speed</u>." It is therefore clear that the cited prior art references, taken either alone or in combination with one another, fail to teach the "limiting an average rate of transmission..." as is set forth by amended claims 1, 6, and 11.

The Applicants assert that the system of Yao cannot be used limit the average rate of transmission to a speed indicated by a user at the requesting computer. The intent and purpose of the system of Yao is to ensure that data is transferred at a rate that is at least equal to a data rate of <u>an entered real time stream data</u>. Yao, column 4, lines 7-10 and column 4, lines 44-48. The "real time data streams" of Yao are transferred by using "a number of unit streams and a block transfer time for the real time data stream, according to a data rate of each real time stream data." Yao, column 2, lines 50-53. The Applicants assert that the focus of the Yao reference is transferring real time data streams, which necessarily have to be transferred at the data rate that is associated with that real time data. Allowing a user to specify a speed of transmission that is less than the speed required by the "real time data stream" would cause that "real time data stream" to be transmitted too slowly, and therefore leads to an inoperable system.

The Applicants therefore assert that the modification of Yao to the present invention is improper as it would yield an inoperable device. If references taken in combination would produce a "seemingly inoperative device," such references have been held to teach away from the combination and thus cannot serve as predicates for a *prima facie* case of obviousness. *In re Sponnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (CCPA 1969)

BC9-99-044   -10-   S/N 09/497,836

(references teach away from combination if combination produces seemingly inoperative device); see also *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (inoperable modification teaches away).

Even assuming, *arguendo*, that the teachings of Welles and Yao could be combined into an operable system, the Applicants respectfully assert that there is no motivation to combine the teachings of Welles and Yao. The Applicants note the Examiner's maintenance of the position that there is sufficient motivation to combine the Welles and Yao references. Office Action dated July 22, 2005, page 2, last paragraph. However, the Applicants refer to the cited motivation in the previous Office Action for combining the Welles and Yao references, which states "it would have been obvious ... to incorporate and implement the aforementioned steps of dividing or limiting the stream resources into amounts corresponding to the unit streams and allocate according to a data rate of each real time stream so that it becomes possible to utilize the stream resources efficiently without wasting resources." Office Action dated March 22, 2005, page 5, second paragraph. The Applicants assert that the results of this asserted motivation is not the results of the presently claimed invention. The presently claimed invention limits transmitted data rates according to a user provided "indicated speed" and not, as stated by the Examiner, "according to a data rate of each real time stream." The Applicants assert that the 'data rate of each real time stream" of the Yao reference is defined by the real time stream data and is clearly not analogous to an indicated speed received from a requesting computer as is set forth for the presently claimed invention.

The Applicants assert that there is no motivation in the prior art to combine a system that selects one of multiple download paths to select a 'high" and a "low" speed (Welles), with a real time data delivery system (Yao) to produce the claimed invention, which includes a system that limits transmission speed based upon a speed indication signal from a requesting computer.

BC9-99-044   -11-   S/N 09/497,836

The Applicants further assert that the teachings of the Yao reference, which are directed to transferring real time data, are inconsistent with the presently claimed invention, which specifies that "the specified data item is to be delivered in its entirety prior to being accessed." The Applicants assert that the teachings of Yao, which are focused on real-time data delivery and ensuring that the data rate of the real-time data is maintained, is a teaching away of the presently claimed invention. The Yao reference teaches ensuring that the data rate of the real time data is maintained during transfer of that data. See, for example, Yao, column 10, lines 1-12. Ensuring that the data rate of a real time stream data is maintained teaches away from "receiving a speed indication signal" as is set forth in claim 1.

With regards to the Examiner's assertion that the well known ATM related "leaky bucket" or "Generic Cell Rate Algorithm" techniques (hereinafter "leaky bucket techniques") are an adequate teaching of the "limiting" element of claims 1, 6 and 11, the Applicants assert that these techniques are based on predetermined speed limitations, such as a maximum data rate for a particular node, and do not lend themselves to "limiting an average rate of transmission of at least a portion of the specified data item" based upon input from a requesting computer, as is set forth in claims 1, 6, and 11. The Applicants further assert that the leaky bucket techniques, as known in the art, are not used to limit a transmission speed "to be not greater than the indicated speed contained within the speed indication signal" as is set forth for amended claims 1, 6, and 11.

Furthermore, the Applicants have amended claims 1, 6, and 11 to more clearly specify the "receiving at the server, in conjunction with receiving the request for the specified data item, a speed indication signal at the server from the requesting computer." Support for these amendments is found in the specification at, for example, page 5, lines 22-25. No new matter has been added by these amendments.

The Applicants assert the leaky bucket techniques are not applicable to applications that include "receiving at the server, in conjunction with receiving the request for the

BC9-99-044   -12-   S/N 09/497,836

specified data item, a speed indication signal from the requesting node," as is recited for the presently claimed invention. The ATM leaky bucket techniques are used to limit the transmission rate from a node to a predetermined speed, and are not applied to individual data items, particularly with regards to limiting transmission speed to be not grater than the indicated speed contained within the speed indication signal received from a requesting computer, as is the context of claims 1, 6, and 11 when those claims are considered "as a whole."

The Applicants assume that the Examiner is taking Official Notice that the leaky bucket techniques teach all of the aspects of the "limiting" limitation of claim 1 and the corresponding limitations of claims 6, and 11. Applicants respectfully traverse this assertion. Official notice is proper for "facts outside of the record which are capable of instant and unquestionable demonstration as being 'well-known' in the art."[2] Applicants respectfully request that a reference be cited supporting a combination of the cited prior art references with leaky bucket techniques to achieve the limitations recited for amended claims 1, 6, and 11.[3]

With regards to claims 2, 7 and 12, the Applicants traverse the Examiner's assertion that the combination of Welles and Yao discloses "determining a period based at least on the average transmission rate." Office Action dated July 22, 2005, page 6, last 2 paragraphs. The Applicants have amended claims 2, 7 and 12 to provide correct antecedent basis. No new matter has been added by these amendments. The Examiner cites a limitation of claim 1 of Yao as a teaching of this limitation of the present invention. The Applicants are unsure if the Examiner is referring to the "block transfer period T" or the "block transfer time" that is discussed in the cited portion of Yao as being a teaching of the

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[2] See, MPEP §2144.03, citations omitted.

[3] See, MPEP §2144.03, "If the applicant traverses such an assertion the examiner should cite a reference in support of his or her position."

BC9-99-044   -13-   S/N 09/497,836

"period" recited in claims 2, 7 and 12. The Applicants will address how both of these quantities cannot be a teaching of the period set forth in these claims.

The Applicants assert that the block transfer period T of Yao is limited to "a prescribed block transfer period T." Yao, column 12, lines 21-23 (emphasis added). The Applicants assert that a prescribed block transfer period cannot be a teaching of "determining a block size" as is set forth in claims 2, 7 and 12.

The Applicants point out that the "block transfer time" of Yao is determined "according to the number of unit streams to be used and the prescribed block transfer period T." Yao, column 12, lines 22-25. In fact, Yao defines the block transfer time to be the "block transfer period" (which is defined as being prescribed) divided by the number of unit streams. Yao, column 6, lines 11-18. The "block transfer time" is also defined by Yao as the time in which each data block is transmitted. Yao, column 6, lines 25-29. The Applicants assert that the "block transfer time" in which the data blocks are transmitted is not a teaching of the "time period" set forth in claims 2, 7 and 12, which include "transmitting a plurality of blocks of data, each of the blocks having the block size and being transmitted at intervals substantially equal to the period." The "block transfer time" of Yao is only the time that it takes to transfer the data blocks being communicated and is not a teaching of the "period" as set forth in claims 2, 7 and 12, which further specifies that "each of the blocks ... being transmitted at intervals substantially equal to the time period" as is set forth in claims 2, 7 and 12.

With further regards to claims 2, 7, and 12, the Applicants assert that the cited portions of Yao do not teach or suggest the limitation of "transmitting a plurality of blocks of data, each of the blocks having the block size and being transmitted at intervals substantially equal to the period" as is set forth by amended claims 2, 7 and 12. The cited portion of Yao is a limitation of claim 1 of Yao and describes "using as many unit streams as the number of unit streams to be used in each block transfer period T." Yao, column 12, lines 40-42. The Applicants point out that this "block transfer period T" is defined in

BC9-99-044   -14-   S/N 09/497,836

Yao as "a prescribed block transfer period T." Yao, column 12, lines 21-22. The Applicants assert that this is clearly in contrast with the period specified by amended claims 2, 7, and 12, which specify in an preceding limitation "determining a period..." and then specify the "transmitting" based upon that "determined" period.

With regards to claims 16-18, the Applicants have amended these claims to more clearly recite "wherein the indicated speed is not related to a speed that is associated with the specified data item." Support for these amendments is found in the specification at, for example, at page 8, lines 22-27. No new matter has been added by these amendments. The Applicants traverse the Examiner's assertion that Yao teaches the relevant transmission rate as "not related to a speed that is associated with the specified data item." Office Action dated July 22, 2005, page 7, last paragraph. In the rejection of claims 16-18, the Examiner is citing a reference to a definition of a "unit stream." The "unit stream" of the Yao reference is a stream that can carry a number of bits that are transferred at a "unit data rate" over a "block transfer period T." Yao, column 5, lines 37-51. A "real time stream data" is transferred in "m" "unit streams" according to an equation given at column 6, line 9. Yao, column 5, line 66 through column 6, line 21.

The Applicants point out that the Examiner, in the discussion of independent claims 1, 6 and 11, from which claims 16-18 depend, cites portions of the Yao reference that describe the data rate for the "real time stream data." Office Action dated July 22, 2005, page 6, first full paragraph. (Citing Yao, col. 7, lines 33-67 through col. 8, lines 1-5). This portion of Yao teaches the data rate of the "real time stream data" as being a multiple of "m" "unit streams." Yao, column 7, line 67 through column 8, line 1. The data rate considered in claim 1 is a product of "m" "unit streams." The data rate cited for claims 16-18 is simply the rate of the individual "unit streams." The Applicants assert that in considering these claims "as a whole," the same "data rates," or "indicated speed," should be considered for both dependent claims 16-18 and for the same quantity of the independent claims from which they depend.

BC9-99-044   -15-   S/N 09/497,836

For at least the reasons discussed above, Applicants respectfully assert that claims 1-2, 6-7, 11-12 and 16-18 distinguish over the Welles and Yao references, taken either alone or in combination. In addition to the above, the Applicants further assert that dependent claims 2-4, 7-9, 12-14 and 16-18 depend from claims 1, 6 and 11, and further include all of the limitations of those claims. Therefore, Applicants respectfully submit that claims 1-4, 6-9, 11-14 and 16-18 all distinguish over Welles and Yao references for at the above reasons. The Applicants therefore assert that the rejection of claims 1-4, 6-9, 11-14 and 16-18 under 35 U.S.C. §103(a) over Welles in view of Yao is improper and should be withdrawn.

Rejection under 35 U.S.C. §103(a) as being unpatentable over Welles in view of Huizer

As noted above, the Examiner rejected claims 5, 10 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Welles (U.S. Patent No. 6,532,495) (Hereinafter Welles) in view of Huizer et al. (U.S. Patent No. 6,751,802) (Hereinafter Huizer).[4]

The Applicants have amended claims 5, 10 and 15 to more clearly recite "sending, according to the schedule, a sequence of pause transmission and resume transmission signals from the client computer to a server computer." Support for these amendments is found in the specification at, for example, page 9, lines 16-27. No new matter has been added by these amendments.

With regards to the citations to Welles and Yao, the Applicants reassert their remarks above with regards to the similar limitations of claims 1, 6, and 11. With further regards to Yao, the Applicants point out that claims 5, 10 and 15 recite "generating a schedule for issuing pause transmission and resume transmission signals based on the user input speed setting..." and that the Yao reference contains no discussion or suggestion of such a schedule. At most, Yao teaches scheduling transmission of data

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[4] Applicants make no statement whether such combination is even proper.

BC9-99-044   -16-   S/N 09/497,836

packets, referred to as blocks, that carry the actual requested data. Yao does not teach or suggest a schedule for issuing any type of control data, such as the pause transmission and resume transmission signals set forth in these claims.

With regards to the citation of the Huizer reference, the Applicants respectfully traverse the Examiner's assertion that Huizer, even in combination with Welles and Yao, contains a sufficient teaching of "sending a sequence of pause transmission and resume transmission signals from the client computer to a server computer according to the schedule" as is set forth in the context of claims 5, 10 and 15. Although Huizer does teach sending pause and resume transmissions, there is no teaching or suggestion of sending these transmissions in any type of automated, let alone scheduled, manner. The Huizer reference is limited to sending pause and resume transmission in response to a human viewer's command. Huizer, column 2, lines 42-50.

The Applicants further assert that the teachings of Yao are limited to periodic transmissions of data packets and that the Yao reference does not teach or suggest periodically sending anything other than the data being transferred. The Yao reference, either alone or in any combination with either or both of the Huizer or Welles reference, does not teach or suggest the periodic sending of any type of control signals, such as the pause transmission and resume transmission signals set forth in claims 5, 10 and 15.

Furthermore, the Huizer system performs complex processing after generation of the pause or resume transmission, which is inconsistent with limiting "an average transmission rate of transmission ... to be not greater than the user input speed." This processing is taught as being a necessary in response to properly accommodating the pause and resume signal transmissions of the Huizer system. The Applicants assert that incorporating pause and resume transmissions that require the involved processing taught by Huizer would render an inoperable system as the pause and resume processing would not finish prior to receipt of the next resume or pause signal in the case of short pauses in transmission.

BC9-99-044   -17-   S/N 09/497,836

The Applicants assert that there is no motivation to combine the scheduling operations of Yao with the control transmissions of Huizer. The scheduling of Yao is performed to provide a required transmission rate of a minimum number of bits within a specified transmission time. The control transmission of Huizer are performed to start and stop playback of video. Further, the operations of Huizer, as discussed above, are not compatible with the rapid start/stop data transmissions of Yao.

Therefore, Applicants respectfully submit that claims 5, 10, and 15 distinguish over Welles, Yao, and Huizer references for at the above reasons. The Applicants therefore assert that the rejection of claims 5, 10 and 15 under 35 U.S.C. §103(a) over Welles in view of Yao and further in view of Huizer is improper and should be withdrawn.

New Claims

The Applicants have added new dependent claim 19. Support for new dependent claim 19 is found in the specification at, for example, page 8, lines 11 though page 9, line 6. No new matter has been added by this amendment. The Applicants assert that the cited prior art references, taken either alone or in combination with one another do not teach or suggest the combination of limitations recited for claim 19, particularly when considered "as a whole."

BC9-99-044   -18-   S/N 09/497,836
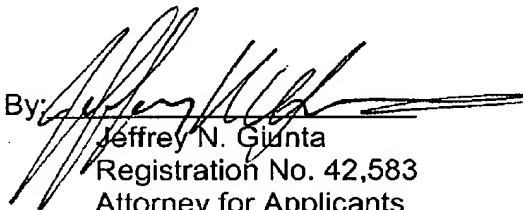
CONCLUSIONS

In view of the foregoing, it is respectfully submitted that the application and the claims are in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

PLEASE, if for any reason the Examiner finds the application other than in condition for allowance, the Examiner is invited to call either of the undersigned attorneys at (561) 989-9811 should the Examiner believe a telephone interview would advance the prosecution of the application.

Respectfully submitted,

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BC9-99-044   -19-   S/N 09/497,836